

# SERVICE INFORMATION

**NORDMENDE**  
THOMSON TECHNOLOGY

**VIDEO**  
**COLLECTION**

**NORDMENDE SPECTRA**

**V 4400 J / 991 .330 A**

# Service-Hinweise

## Hinweis:

Das Laufwerk, die Videoköpfe und alle Bandführungen benötigen nach ca. 500 Betriebsstunden periodische Reinigung und Pflege, um die normale Leistungsfähigkeit zu erhalten. Die Wartungs-Hinweise sind als Kurzanleitung gedacht.

## Pflege und Wartung

Die folgenden Teile benötigen eine periodische Reinigung und Fettung, um ihre normale Leistungsfähigkeit zu erhalten:

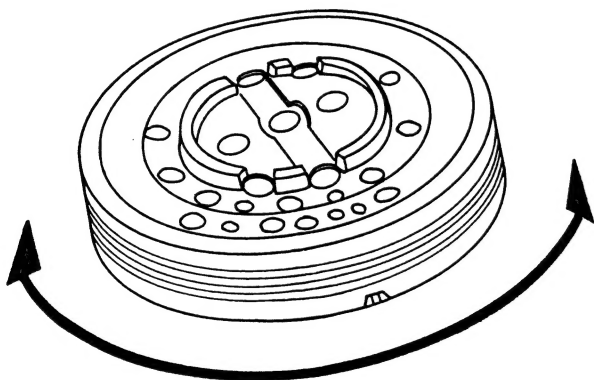
### A. Trommelsystem

1. Die Kopftrommel, die Lösch-, Audio- und Synchronköpfe, die zwei Bandführungen und die zwei Führungsrollen müssen regelmäßig gereinigt werden. Da diese Teile direkten Kontakt mit dem Video-Band haben, nehmen sie leicht Staub an.

### Vorsicht:

Wenn die beiden Video-Köpfe auf der Kopftrommel gereinigt werden, sind sie nicht in senkrechter Richtung zu bearbeiten. Mit möglichst sanfter Hin- und Rückbewegung in Richtung des Bandweges die Trommel säubern, da die Köpfe aus Ferrit hergestellt sind und leicht zerbrechen können.

2. Zum Reinigen ausschließlich ein staubfreies Ledertuch benutzen, welches mit reinem Alkohol angefeuchtet wurde.
3. Nachdem die Teile mit Alkohol gereinigt wurden, sollten sie einige Zeit trocknen, bevor das Cassette-Band benutzt wird, da der Alkohol das Band beschädigen könnte.



### B. Andruckrolle und Capstan-Welle

1. Staub an der Andruckrolle oder der Capstan-Welle kann deren Funktionsefähigkeit beeinträchtigen.
2. Die Oberfläche der Andruckrolle und die Capstan-Welle sollten mit einer milden Waschmittellösung und einem staubfreien Tuch gereinigt werden.

### Achtung:

Alkohol kann Gummi angreifen.

### Kanal des eingebauten Modulators abstimmen

Werksseitig ist der Modulator auf Kanal 36 im UHF-Bereich abgestimmt. Wenn dieser Kanal am Aufstellungsort des Videorecorders bereits durch einen Fernsehsender belegt ist, muß für den Videorecorder ein anderer Kanal gewählt werden, um gegenseitige Bild- und Tonstörungen zu vermeiden.

1. Die Abstimmung des Fernsehgerätes geringfügig verstellen, bis der Bildschirm nur noch Rauschen zeigt.
2. Testbild-Schalter in Pos. „Ein“ schalten.
3. Mit Schraubendreher den Abstimmkern des Modulators auf der Rückseite verdrehen, bis das Testbild optimal wiedergegeben wird.

# Service Instructions

## Note:

The mechanism, the video heads and all tape guides require periodic cleaning and attention after approximately 500 operation hours to maintain the normal performance capability. The Service-Notes are to be regarded as abridged instructions.

## Cleaning and maintenance

The following parts require a periodic cleaning and lubrication to retain their normal performance.

### A. Drum system

1. Clean the head drum, the erase, audio and synchronizing heads, the two guide poles and the two guide rollers occasionally. Since these parts make direct contact with the video tape they tend to collect dust.

### Caution:

When cleaning the two video heads on the upper drum, DO NOT clean them with vertical strokes. Use only a gentle to and fro movement in the direction of the tape travel. Take great care as the heads are made of ferrite and are very fragile.

2. For cleaning use a chamois leather moistened with pure isopropyl alcohol.
3. After cleaning with alcohol, allow the parts to dry before using a cassette tape. Alcohol can damage the tape.

## Reinigung der Kopftrommel – Head drum cleaning

### B. Pinch roller and capstan shaft

1. Dust on the pinch roller or the capstan shaft can impair their operation.
2. Clean the pinch roller surface and the capstan shaft with a mild detergent solution and a lint-free cloth.

### Note:

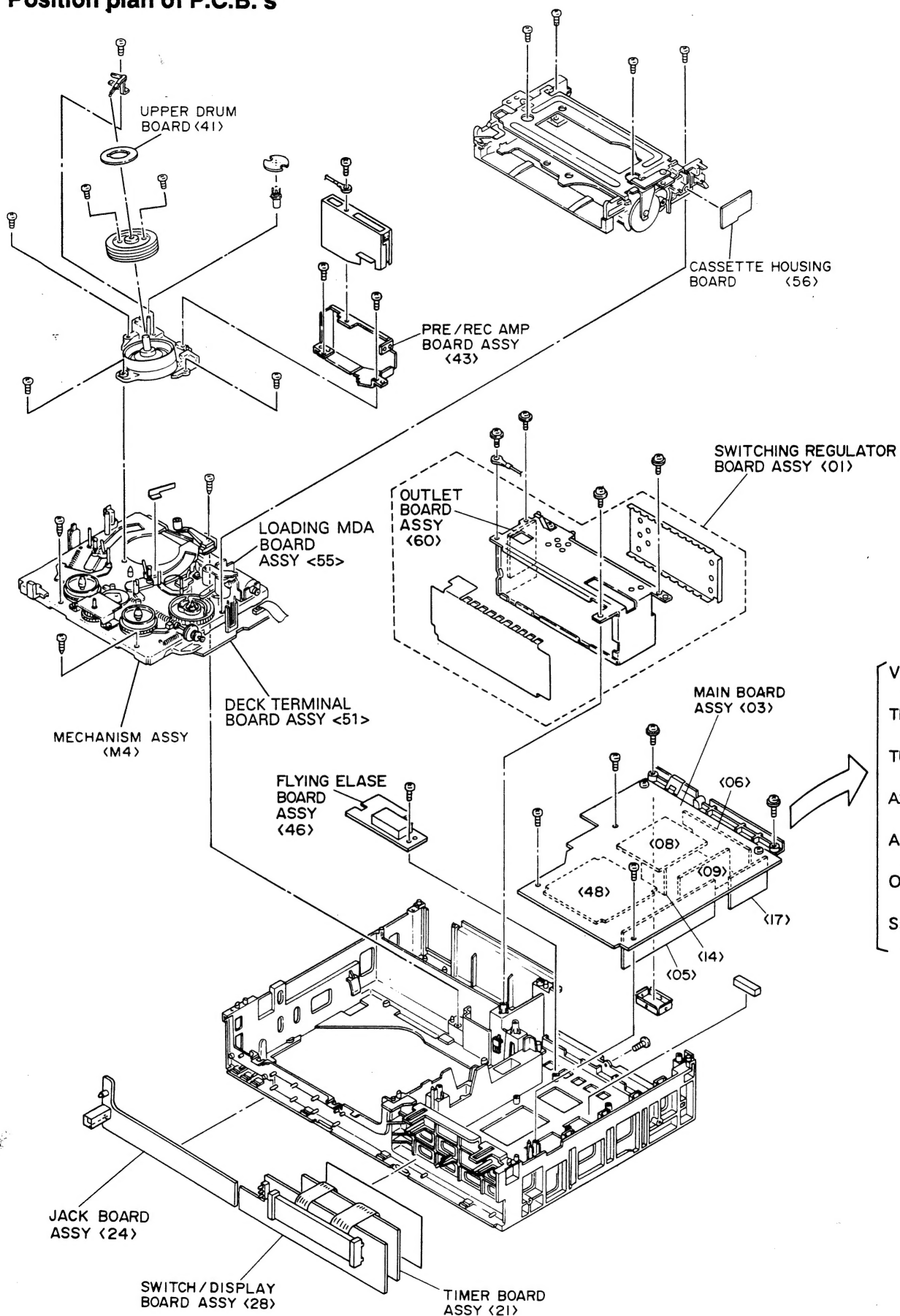
Alcohol can cause rubber to deteriorate.

### Tuning the channel of the built-in modulator

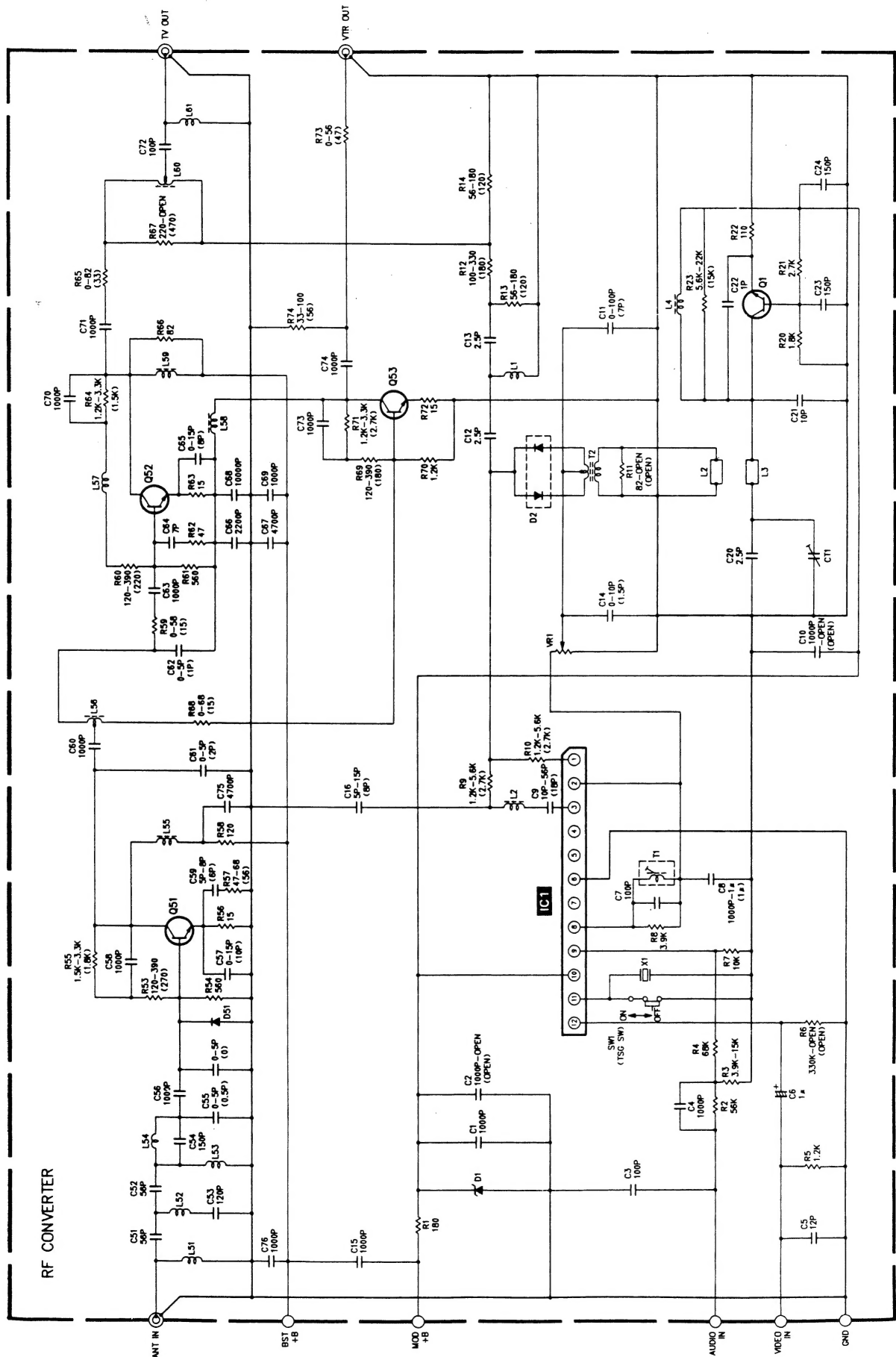
The modulator is factory tuned to channel 36 in the UHF range. When this channel is already occupied by a television transmitter in the location where the video recorder is to be installed, then another channel must be selected to avoid mutual vision and sound interference.

1. Slightly detune the television receiver until the screen displays noise only.
2. Set the TEST switch, located on the rear panel, to ON.
3. With a screwdriver adjust the tuning core of the modulator at the rear of the recorder until the test pattern is reproduced to optimum.

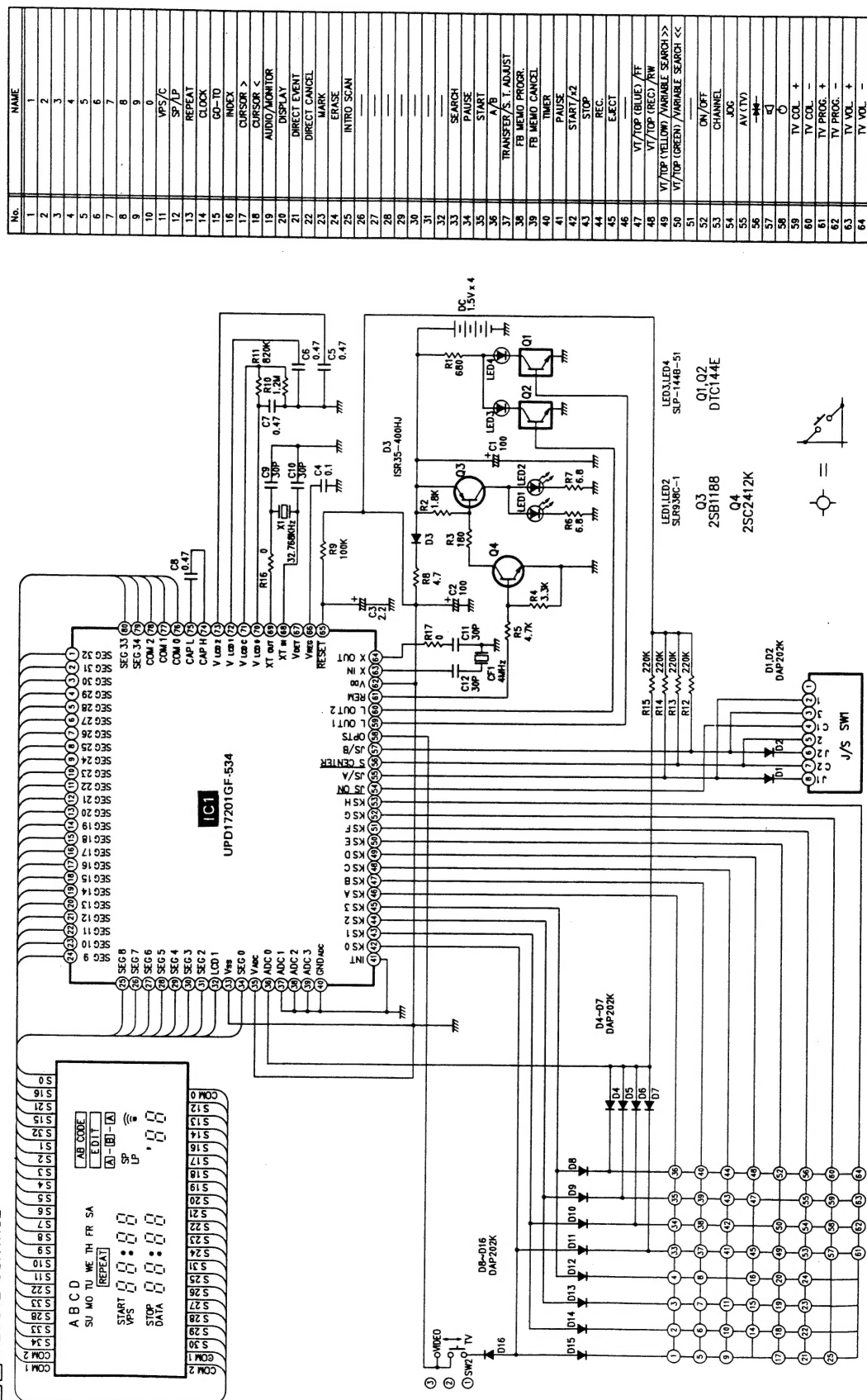
# **Lageplan der Leiterplatten** **Position plan of P.C.B.'s**



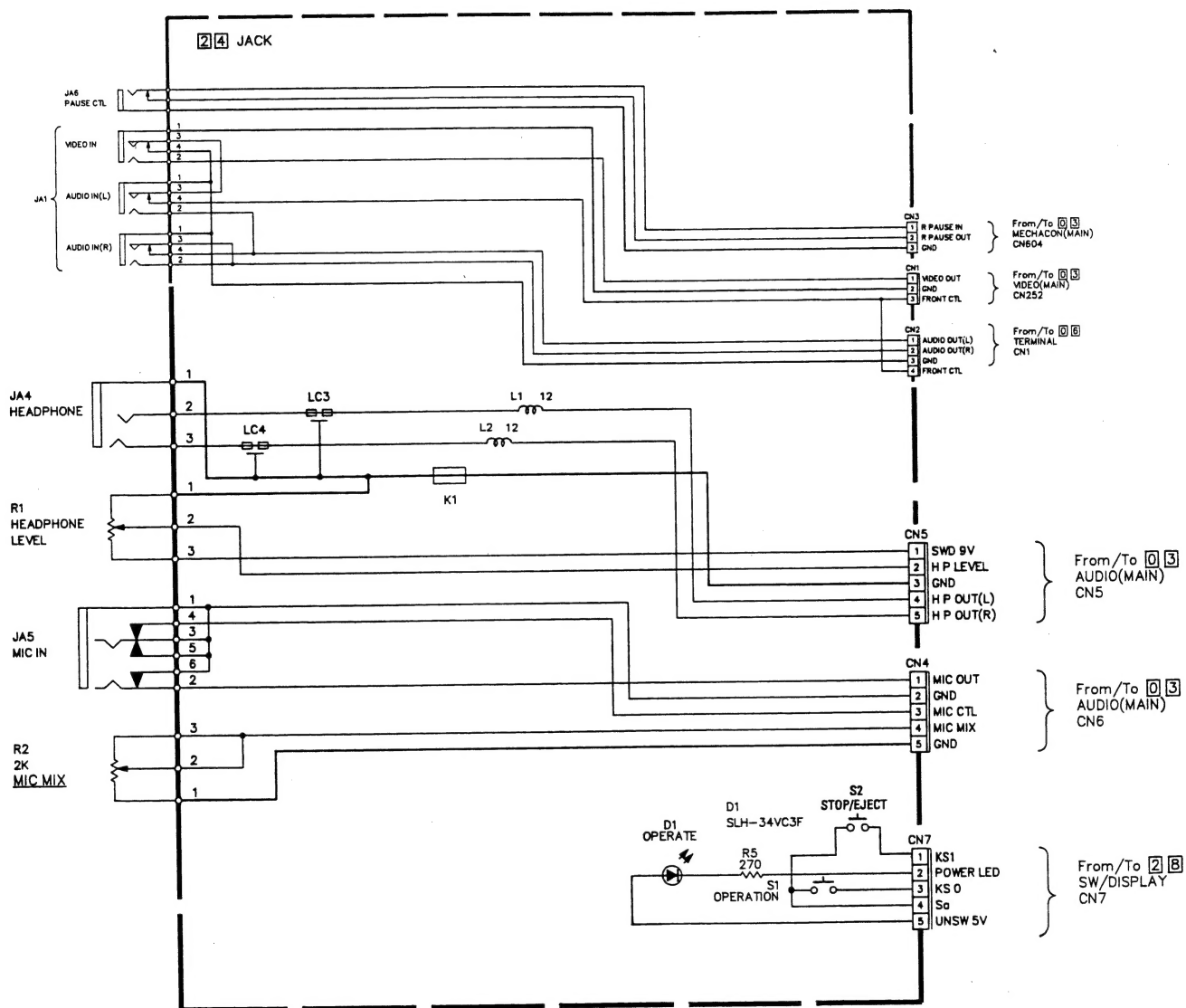
# Antennenverteiler und HF- Modulator Power splitter and RF modulator



**REMOTE CONTROL**



# Audio-Anschlüsse Jack



**Gesamtverdrahtungsplan**  
**Overall wiring diagram**

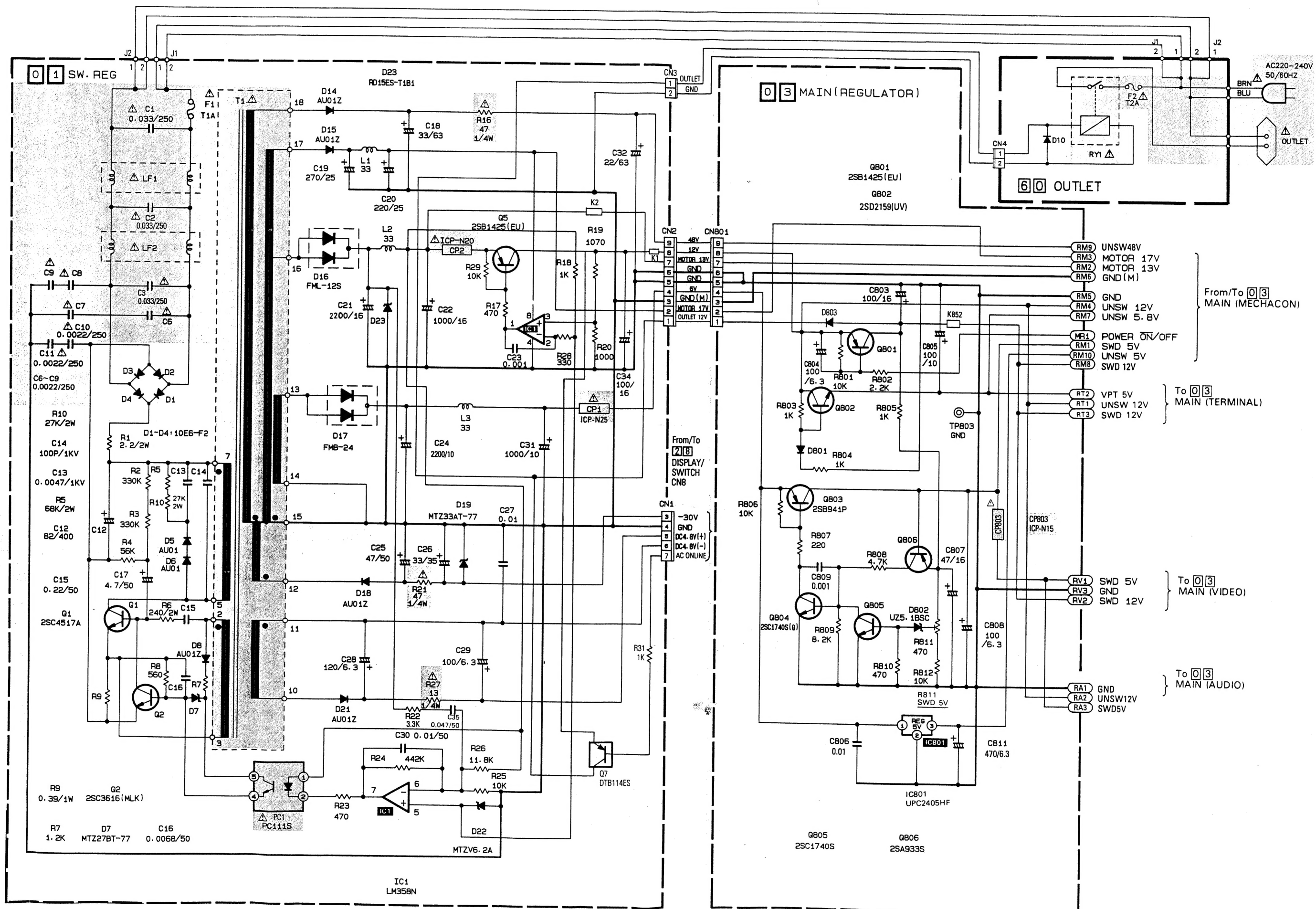
This diagram illustrates the electrical connections for a VHS VCR, showing the internal wiring between various modules and components. The components are organized into functional blocks, each with a unique identifier in a box:

- 01 SW REG**: Switching Regulator, providing power to the system.
- 03 MAIN**: Main control unit, coordinating the VCR's operations.
- 05 VIDEO UNIT**: Handles video signal processing, including chroma and luminance.
- 06 TERMINAL**: Connects the VCR to external audio and video equipment.
- 08 DRUM MOTOR**: The motor that rotates the tape drum.
- 09 AUDIO UNIT**: Processes audio signals, including pre-amplification and equalization.
- 10 TIMER**: Controls the timing of various functions, such as tape transport and still advance.
- 11 ON SCREEN**: Controls the on-screen display (OSD) for menu navigation.
- 12 A/C HEAD**: The audio cassette head.
- 14 A2 DEMOD**: Audio 2nd demodulator.
- 17 CAP MDA**: Cassette motor drive assembly.
- 20 TIMER**: Another timer module, likely for different timing functions.
- 24 JACK**: Audio input/output jack.
- 26 SW/DISPLAY**: Switching and display control unit.
- 41 U. DRUM**: Upper drum motor.
- 43 PRE/REC**: Pre-record and record control unit.
- 45 FLYING ERASE**: Flying erase control unit.
- 46 DRUM MOTOR**: Drum motor.
- 48 CAS. HOUSING**: Cassette housing.
- 51 DECK TERMINAL**: Deck terminal block.
- 52 CAP MDA**: Cassette motor drive assembly.
- 53 LOADING MDA**: Loading motor drive assembly.
- 54 SERV. MOTOR**: Servo motor.
- 55 FLYING ERASE**: Flying erase control unit.
- 56 JACK**: Audio input/output jack.
- 57 TIMER**: Timer module.
- 58 ON SCREEN**: On-screen display control unit.
- 59 A2 DEMOD**: Audio 2nd demodulator.
- 60 A/C HEAD**: Audio cassette head.
- 61 MAIN**: Main control unit.
- 62 SW REG**: Switching Regulator.
- 63 TERMINAL**: Terminal block.
- 64 DRUM MOTOR**: Drum motor.
- 65 CAS. HOUSING**: Cassette housing.
- 66 CAP MDA**: Cassette motor drive assembly.
- 67 SERV. MOTOR**: Servo motor.
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- 233 CAP MDA**: Cassette motor drive assembly.
- <

|     |                    |
|-----|--------------------|
| 5 0 | OUTLET             |
| 5 8 | DRUM MOTOR         |
| 5 7 | CAP MDA            |
| 5 8 | CASS-HOUSING       |
| 5 9 | LOADING MDA        |
| 5 1 | DECK TERMINAL      |
| 4 8 | BEVVO              |
| 4 8 | FLYING ERASE       |
| 4 3 | PRE/REC            |
| 4 1 | U. DRUM            |
| 2 8 | SV/DISPLAY         |
| 2 4 | JACK               |
| 2 0 | TIMER              |
| 1 7 | ON SCREEN          |
| 1 4 | AZ DEMO            |
| 1 2 | A/C HEAD           |
| 0 9 | AUDIO UNIT         |
| 0 8 | TU 1 <sup>st</sup> |
| 0 6 | TERMINAL           |
| 0 5 | VIDEO UNIT         |
| 0 3 | MAIN               |
| 0 1 | SN REG             |
| NC  | NAME               |

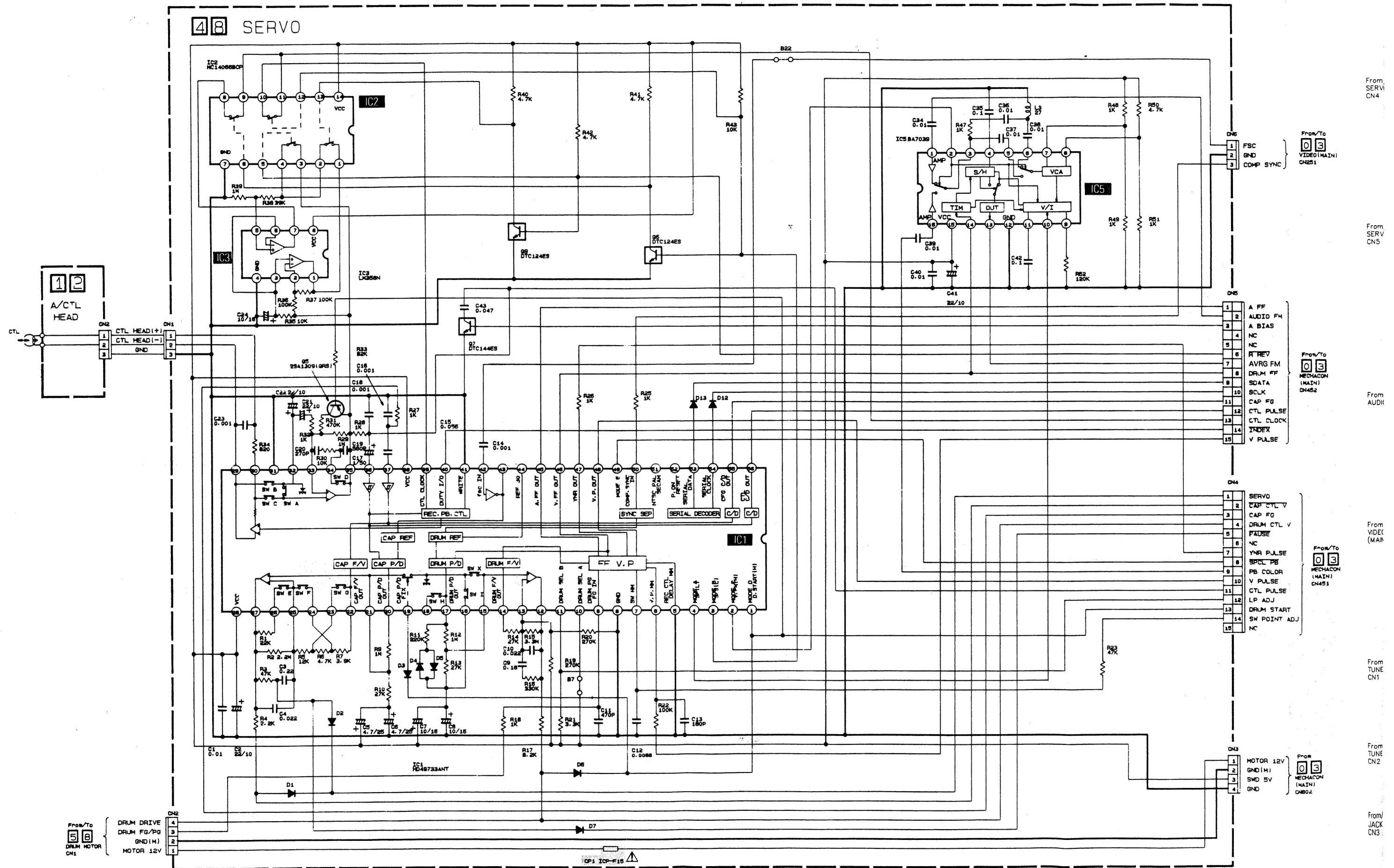


## Netzteil Power supply

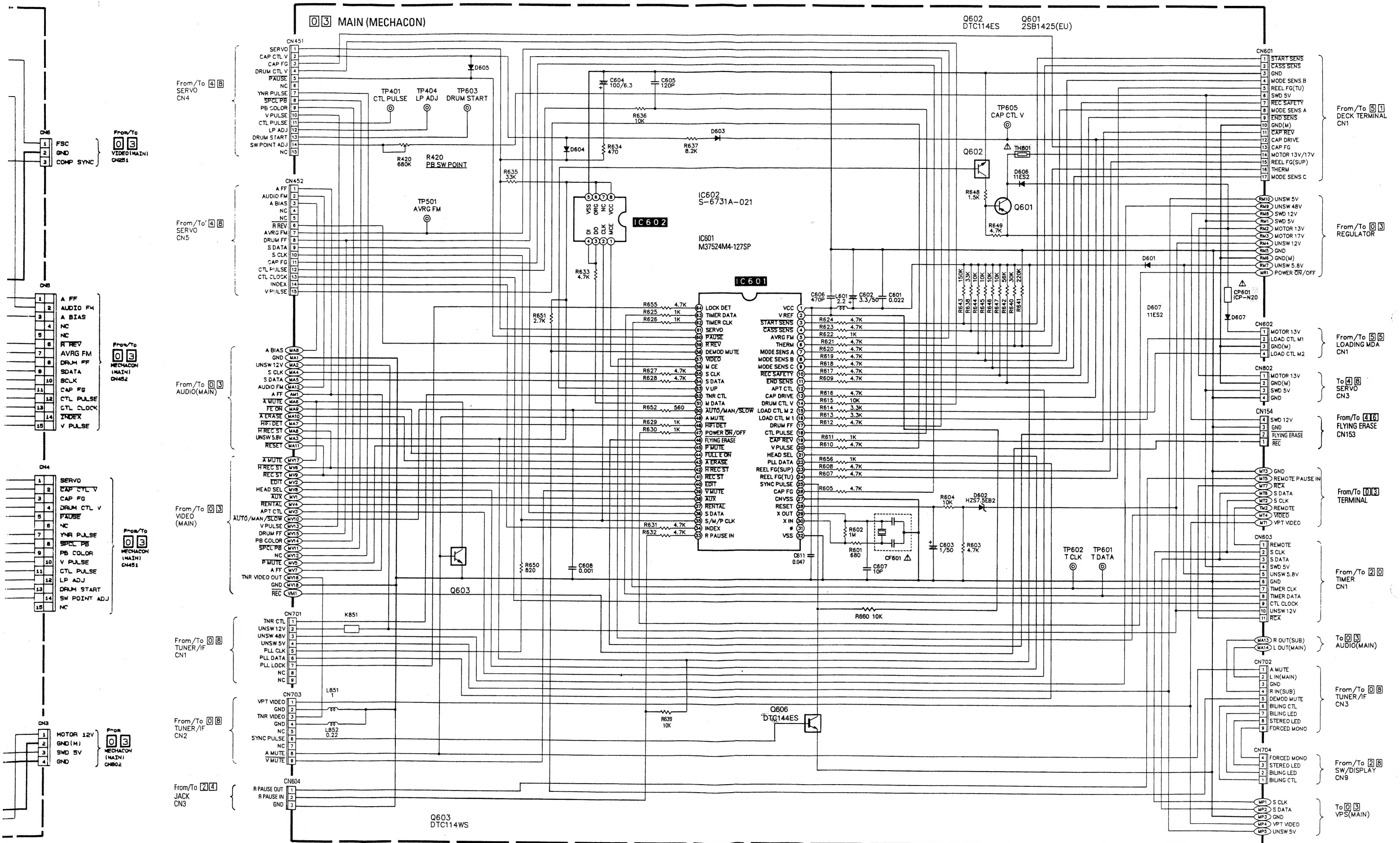




Servo  
Servo



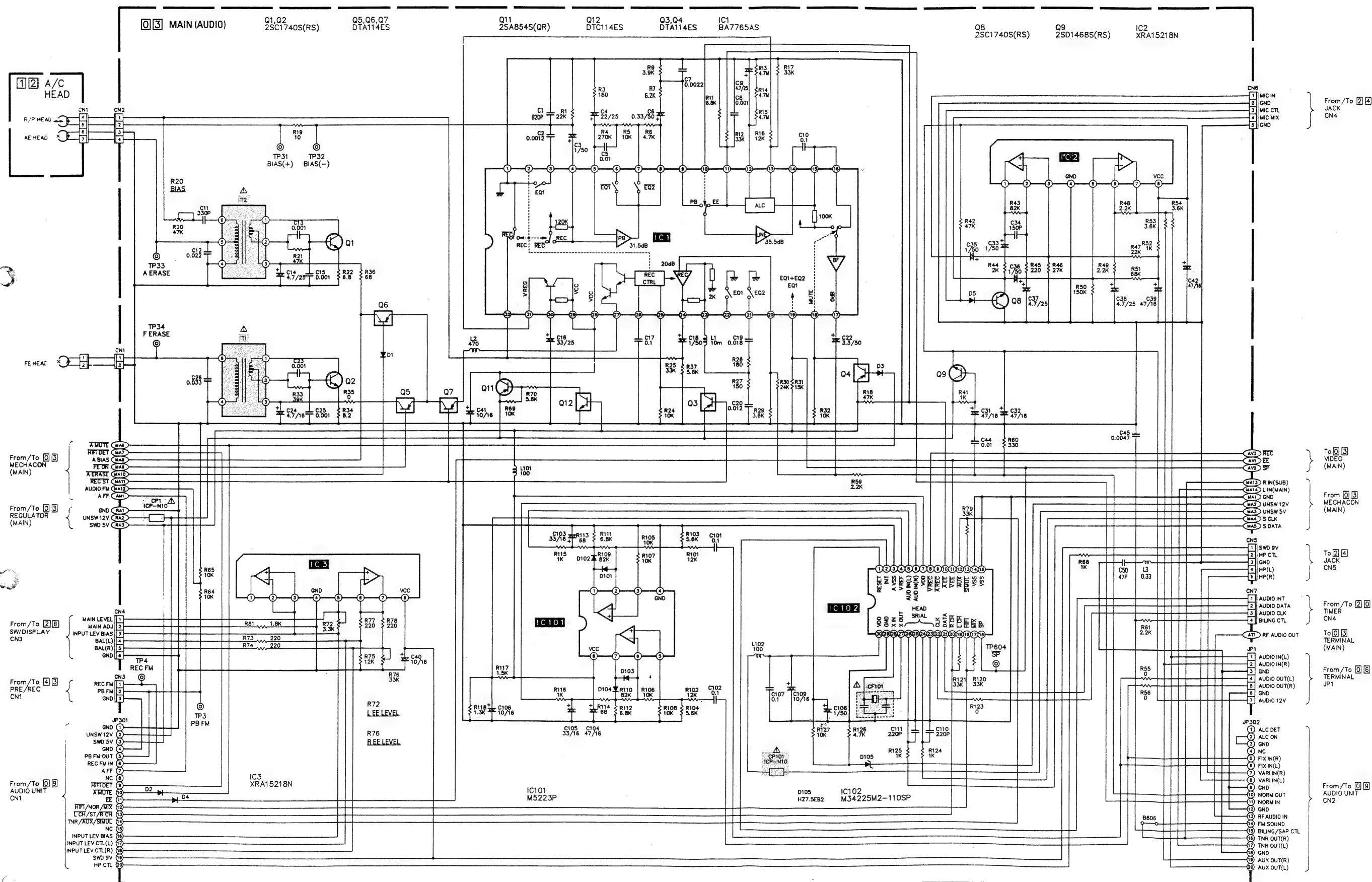
03 MAIN (MECHACON)



## Video

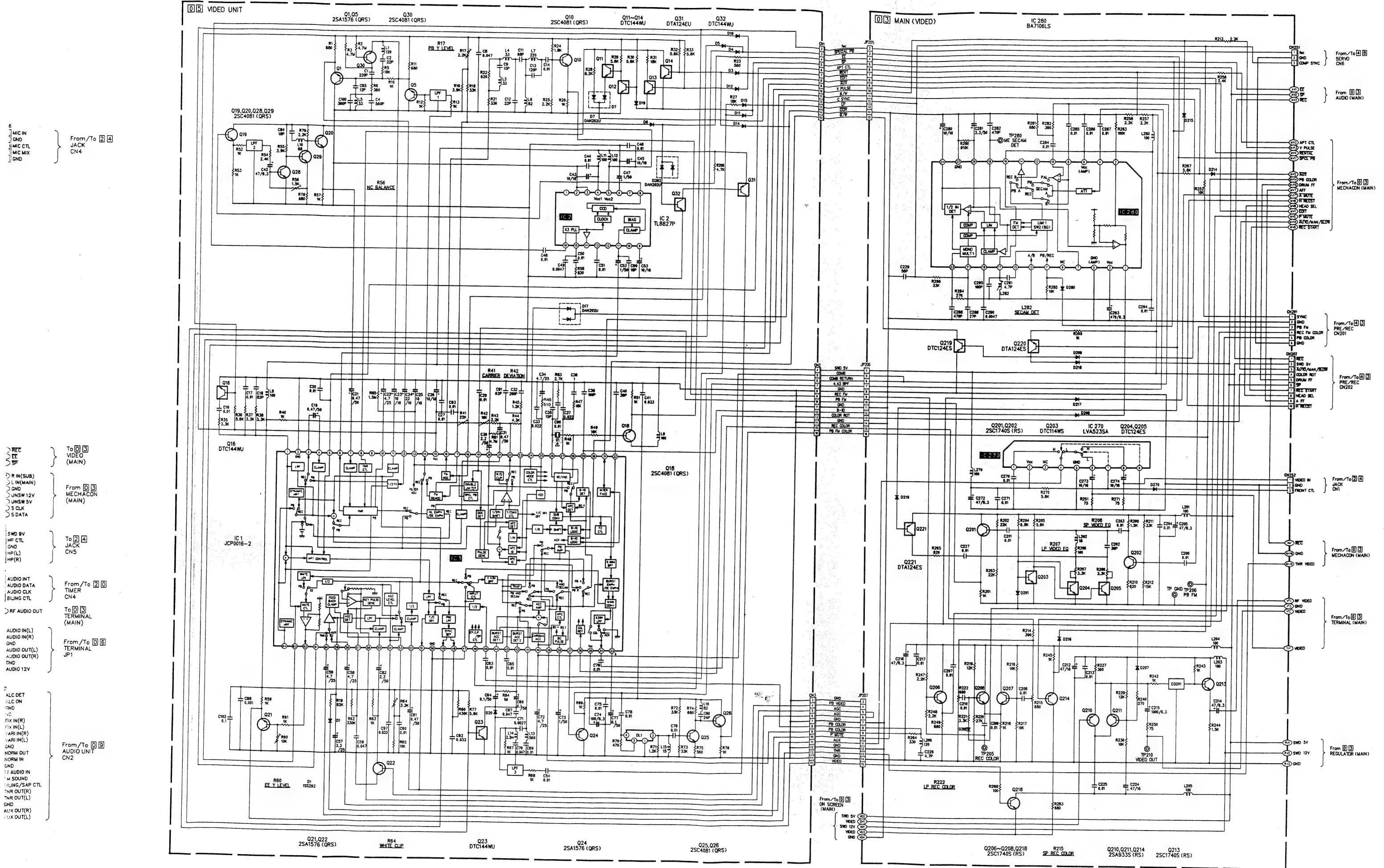
05 VIDEO UNIT

**Audio**  
**Audio**

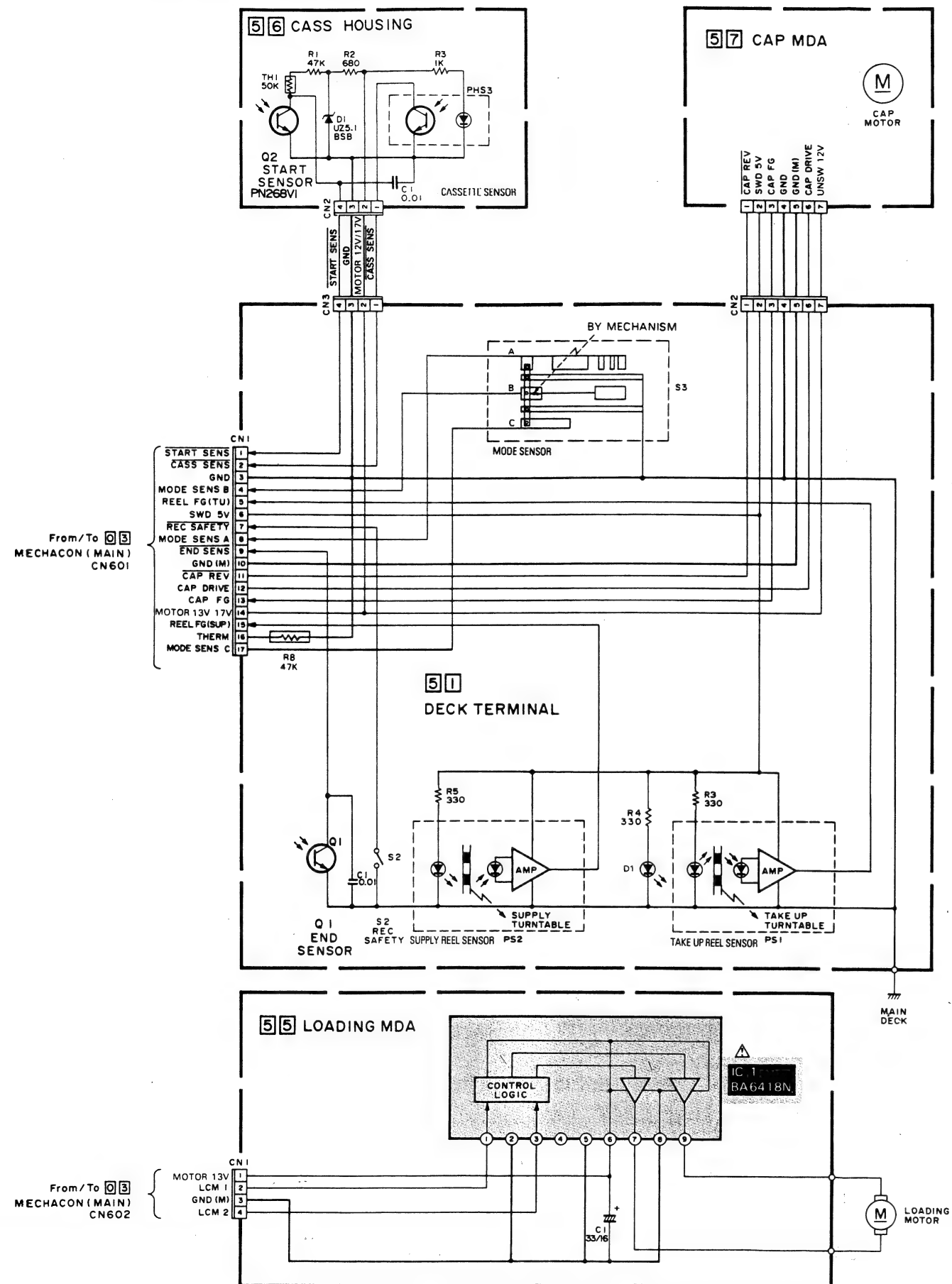




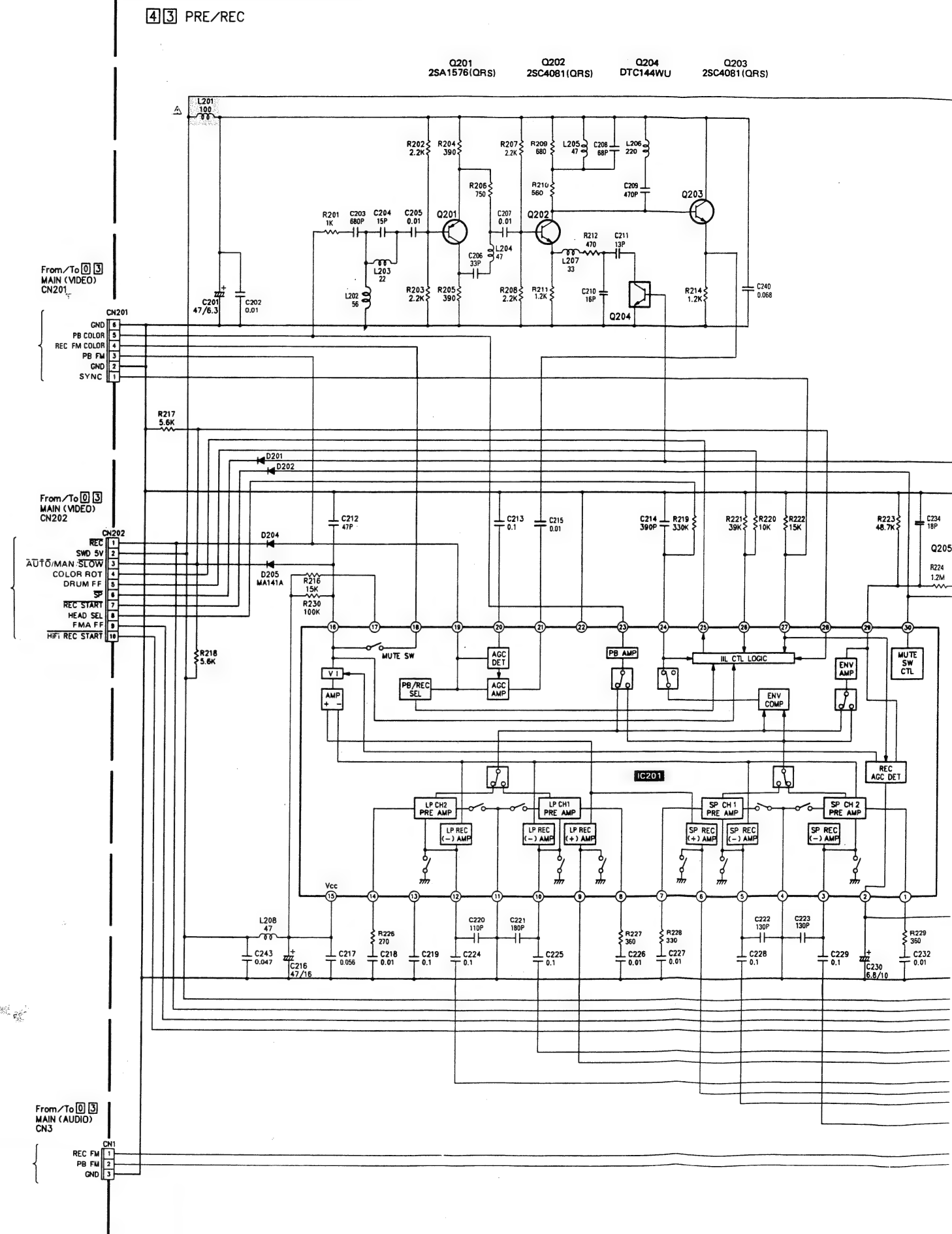
## Video



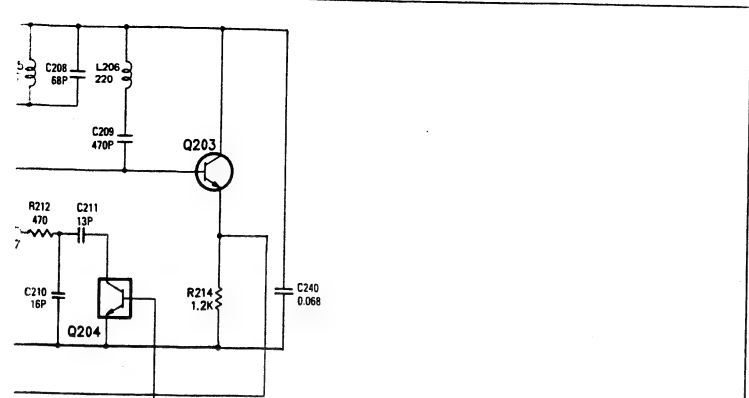
# Schaltung Laufwerk Mecha deck circuit diagram



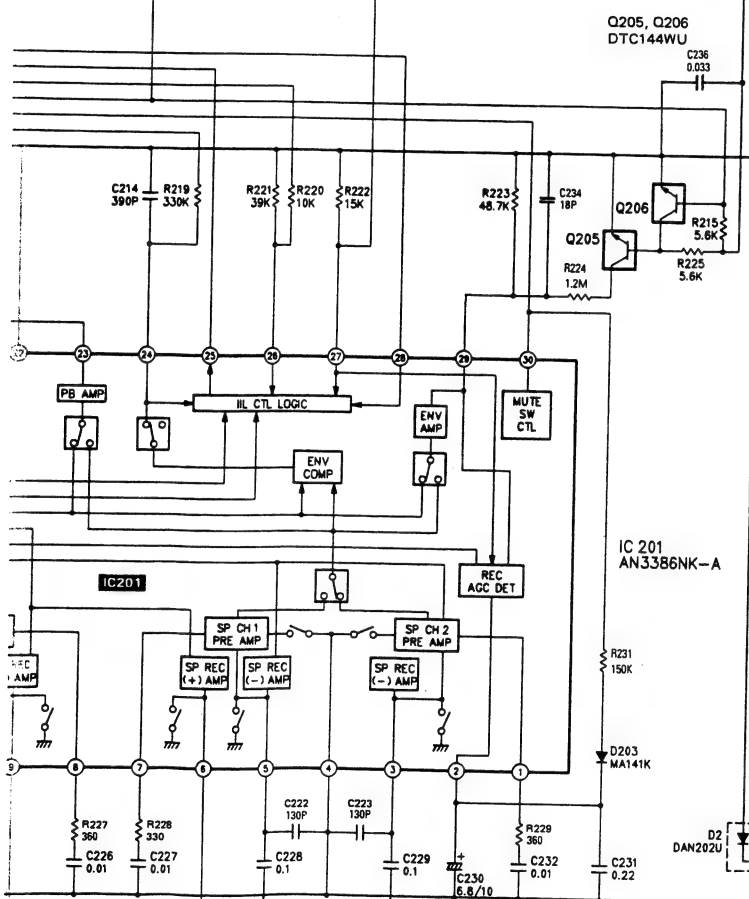
## Vor- und Aufnahmeverstärker Pre- and record amplifier



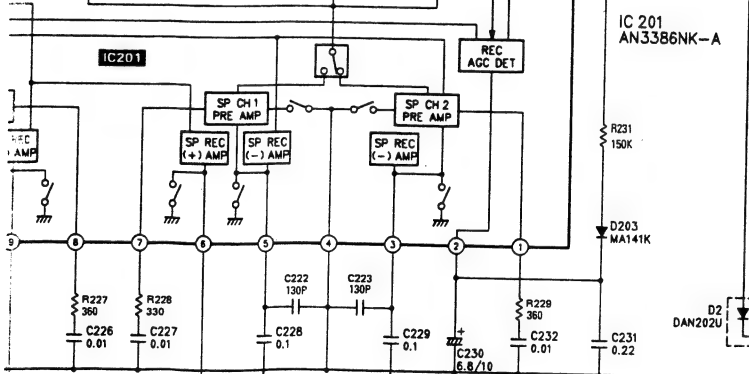
Q204 DTC144WU  
Q203 2SC4081(QRS)



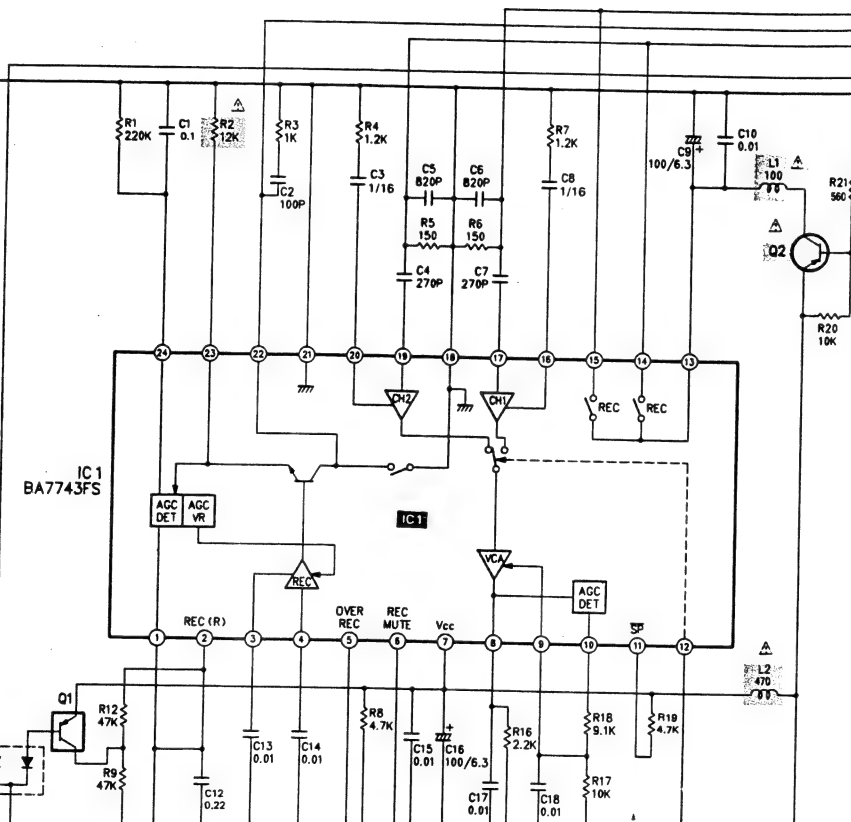
Q205, Q206  
DTC144WU



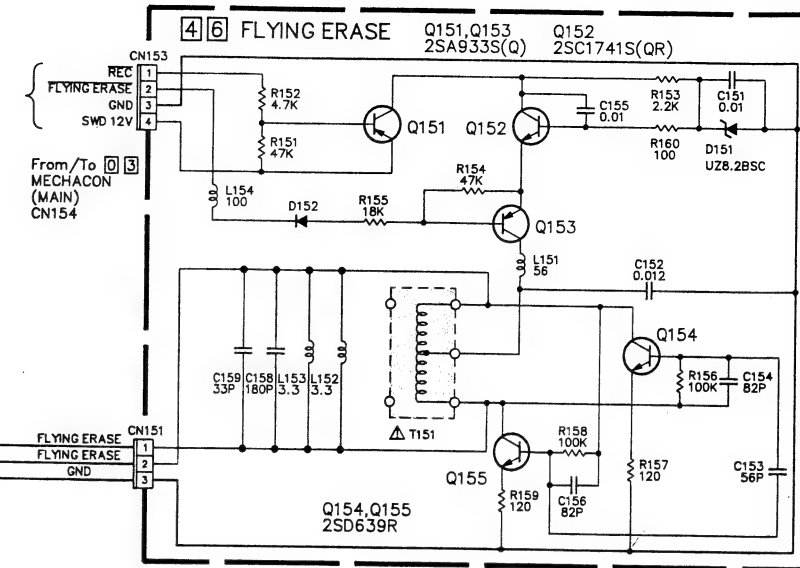
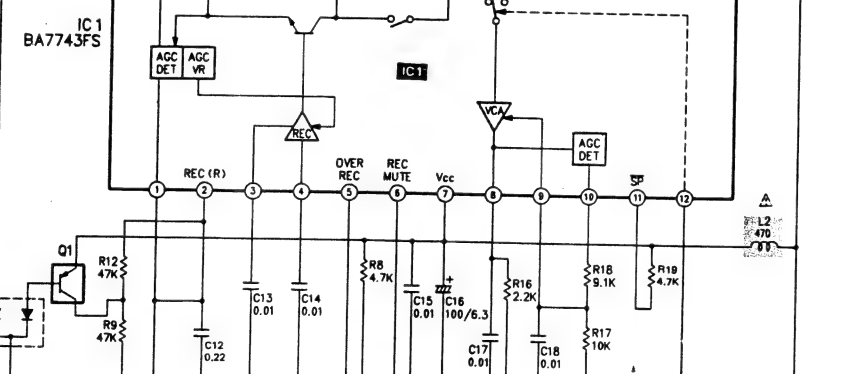
IC 201  
AN3386NK-A



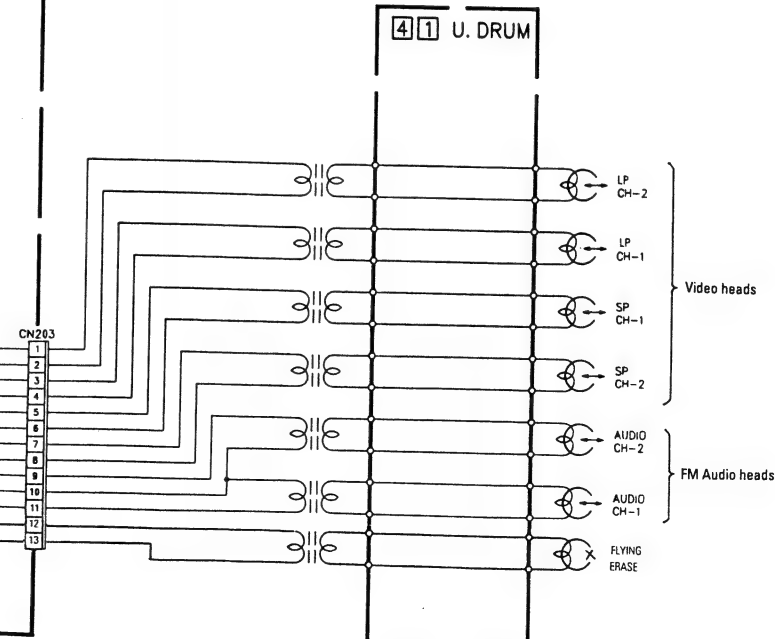
Q1 DTA114EU  
Q2 2SA1036K



IC 1  
BA7743FS



U. DRUM



# Tuner Tuner

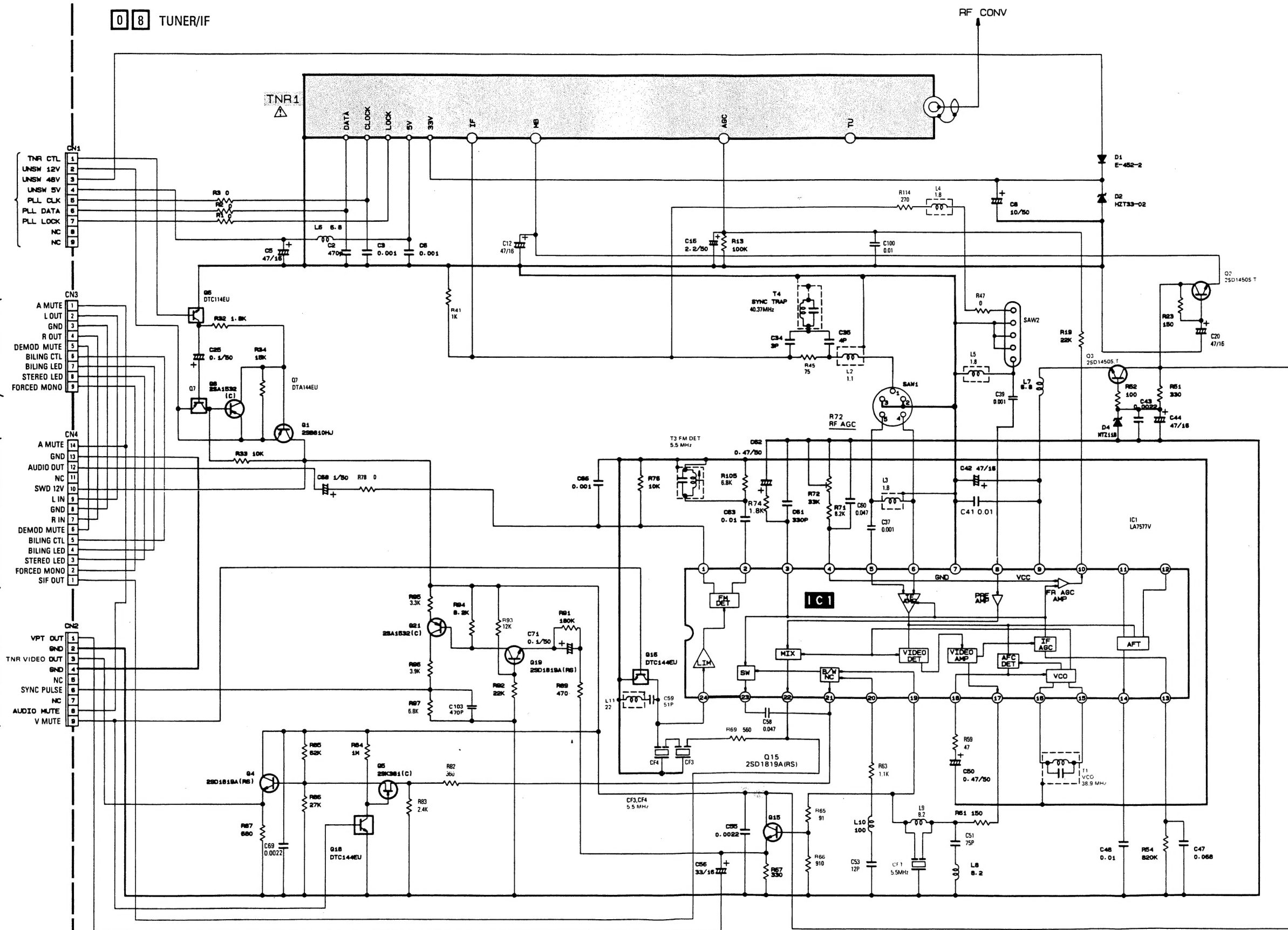
0 8 TUNER/IF

From/To 0 3  
MECHACON  
(MAIN)  
CN701

From/To 0 3  
MECHACON  
(MAIN)  
CN702

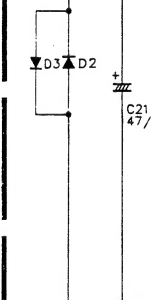
From/To 1 4  
DEMOM  
CN1

From/To 0 3  
MECHACON  
(MAIN)  
CN703



Anschlüsse  
Terminal

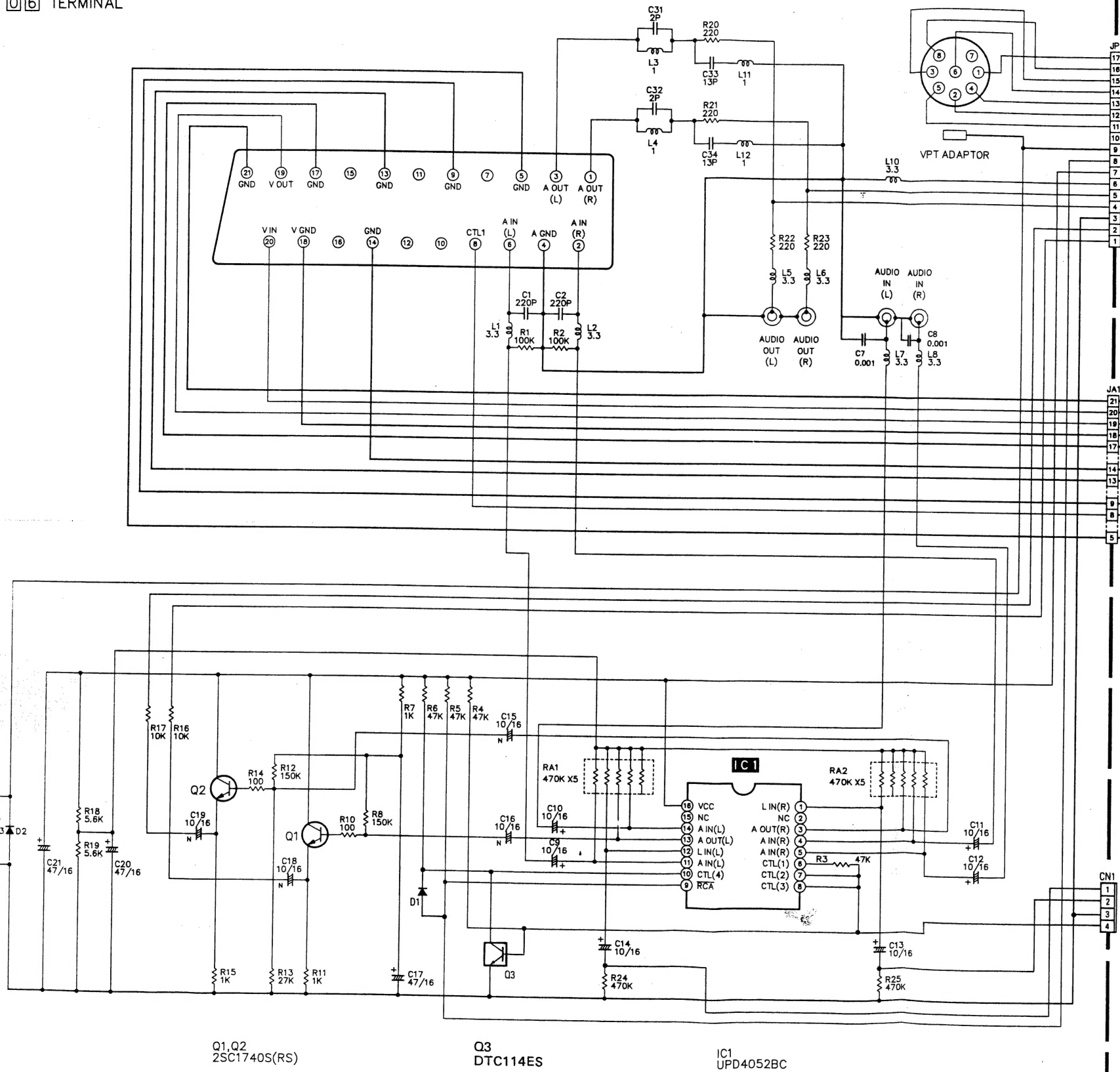
0 6 TER



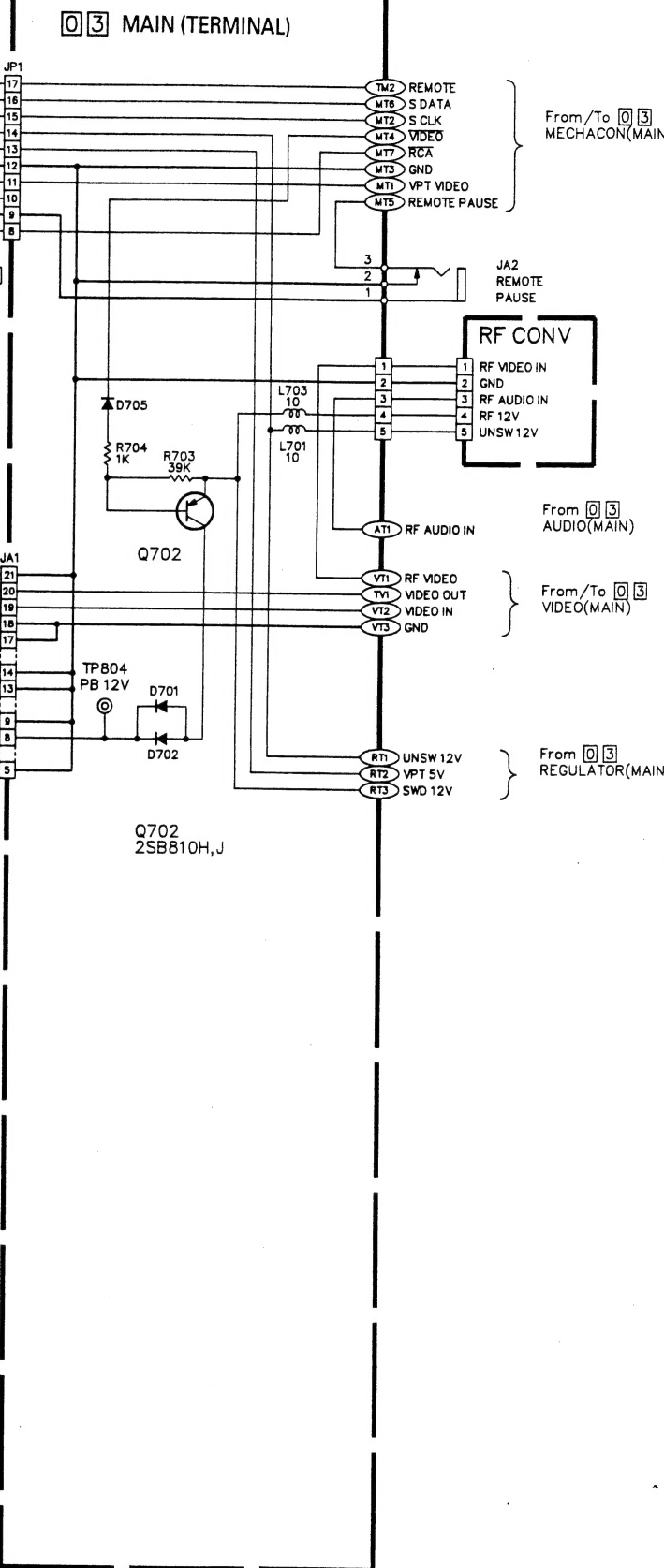


Anschlüsse  
Terminal

06 TERMINAL



03 MAIN (TERMINAL)



From/To 03  
MECHACON(MAIN)

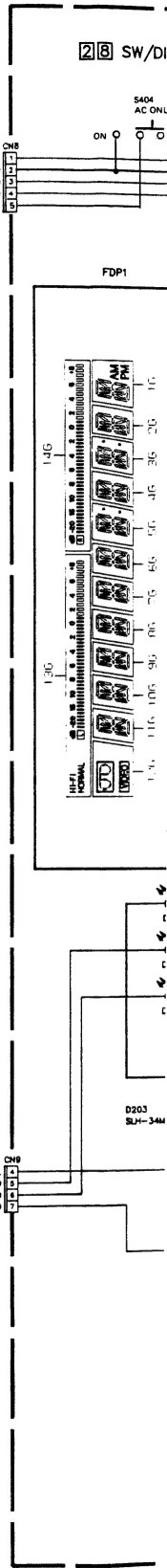
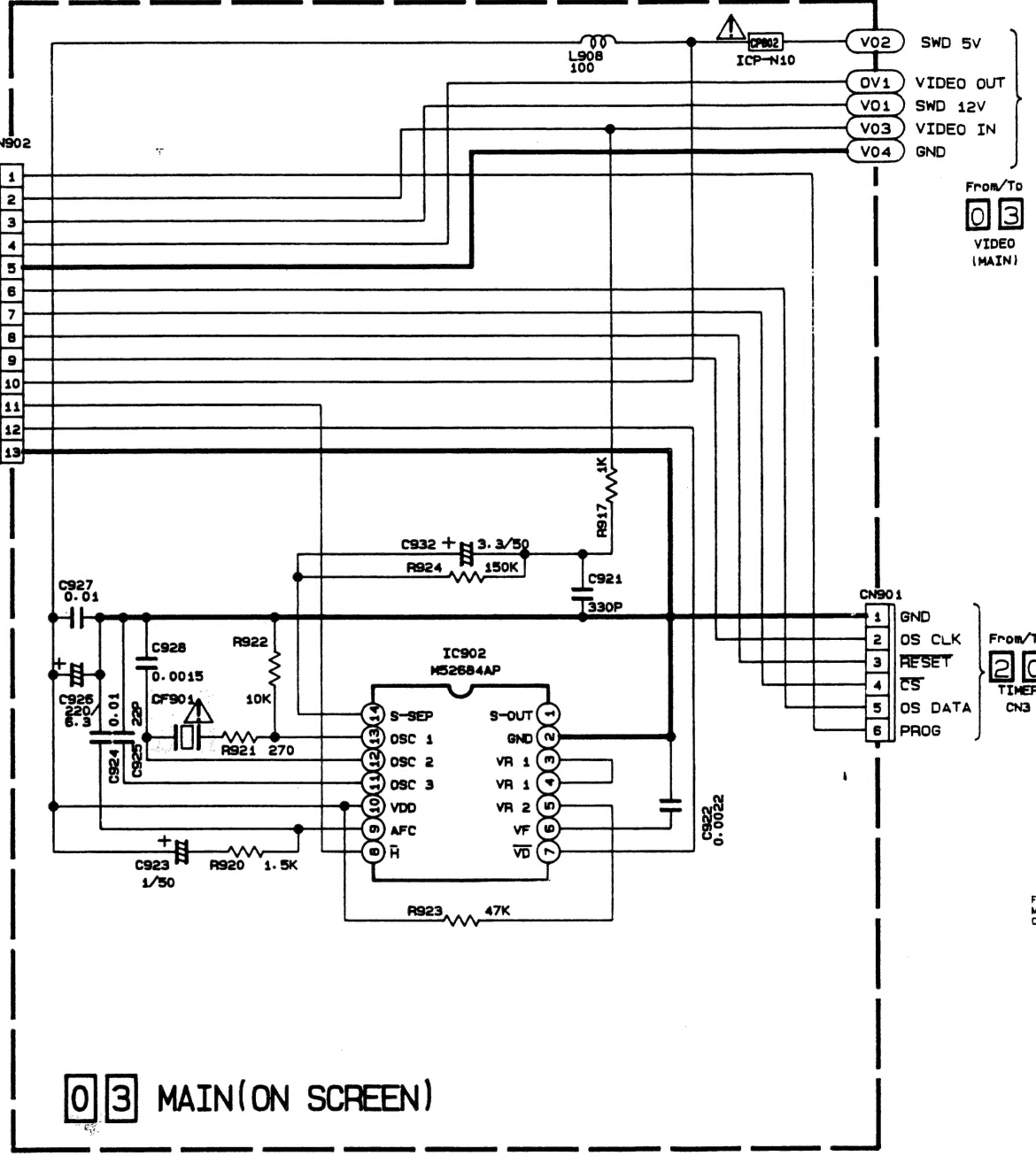
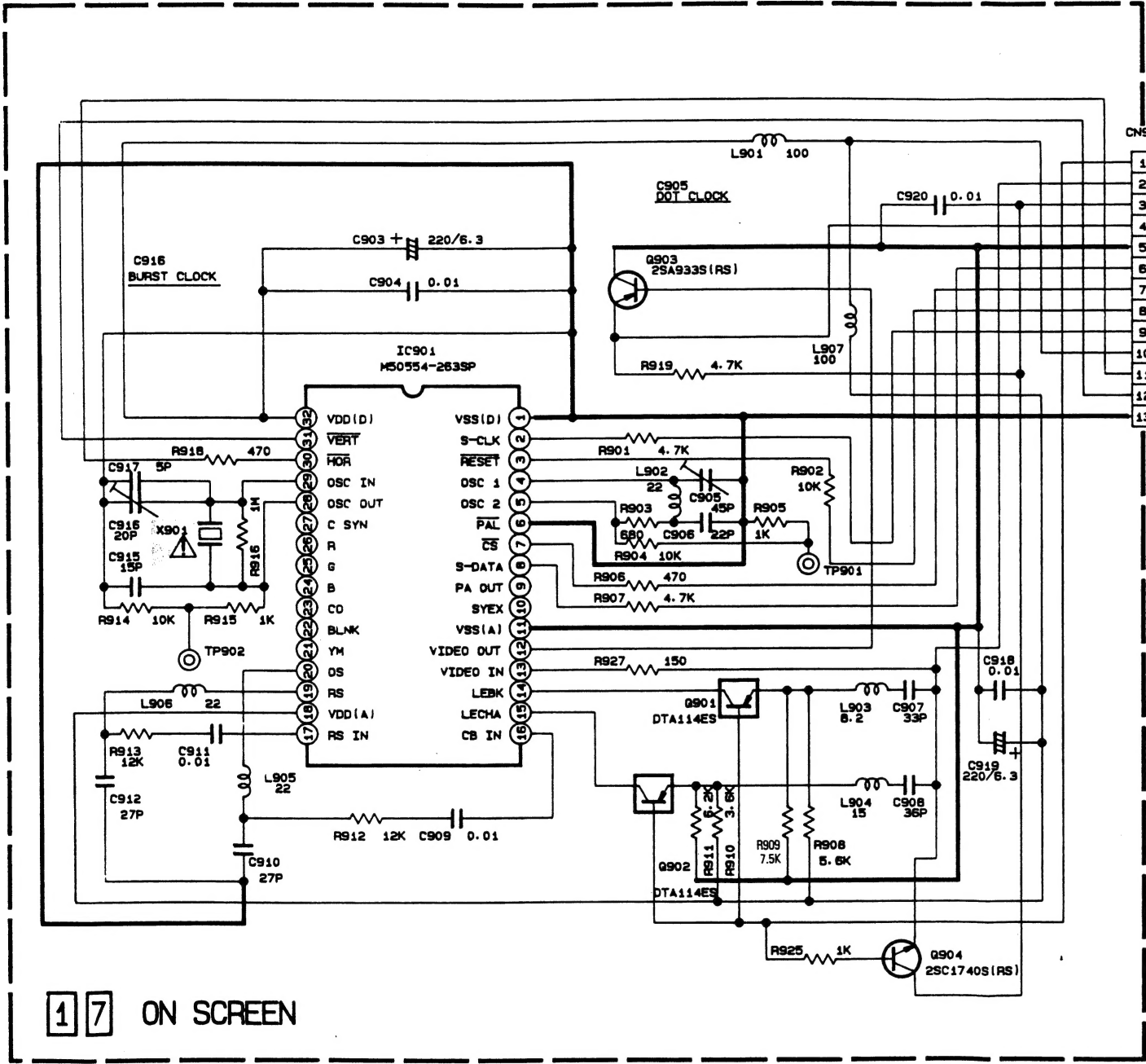
From 03  
AUDIO(MAIN)

From/To 03  
VIDEO(MAIN)

From 03  
REGULATOR(MAIN)

OSD  
OSD

Timer, Disp  
Timer, Disp



## Timer, Display und Bedienung

### Timer, Display and Switch

